REMARKS

The present application was filed on May 30, 2001, with claims 1-19. Claims 1-19 are currently pending in the present application. Claims 1, 18 and 19 are the independent claims.

The specification and claims have been amended to address minor errors of a typographical nature.

Applicants respectfully request reconsideration of the present application in view of the amendments above and the following remarks.

In these remarks, Applicants will initially address the objection to the specification.

The Examiner objects to the use of the term "may" on page 2, line 23, and page 22, line 5, of the specification. Applicants respectfully traverse. The term in question is, in each objected-to instance, part of the following sentence:

> The transformation may include replication and dependency operations to provide robustness to errors in the computations performed by the external servers, and blinding and permutation operations to provide privacy for secret information associated with the computational task.

The sentence in question relates to an illustrative embodiment of the invention, of the type shown generally in FIG. 3, and such replication and dependency operations are specifically recited in a dependent claim, namely, claim 8.

Nonetheless, the Examiner argues that the use of the term "may" in this sentence is somehow misleading, allegedly because there is "no other option presented" in the specification. See the Office Action at page 2, paragraph 5. However, the specification makes it abundantly clear that there are other options, and so the use of "may" is entirely appropriate. For example, the specification at page 8, lines 16-20, provides as follows, with emphasis supplied:

> Dependency and replication represent examples of error detection and correction techniques that may be utilized in conjunction with the invention. Other examples of such techniques include checksums and insertion of known values. Such techniques are more

generally referred to herein as "error-related operations," since these techniques when utilized permit detection and/or correction of errors in computations performed by the external servers.

In addition, the specification at page 16, lines 22-25, states as follows, again with emphasis supplied:

> It is also possible to further reduce the computational costs of the process by eliminating one or more operations such as the replication operation 310 or the dependency operation 312, with corresponding modification of the result transformation 304. It should be noted that these modifications do not alter the degree of privacy, but only the robustness.

Furthermore, the presence of the replication and dependency operation recitations in a dependent claim is in itself an indication of the fact that the broader invention as set forth in the corresponding independent claim covers other types of arrangements.

Since the specification and claims clearly and consistently indicate that the invention does not require the use of replication and dependency operations, the use of "may" in the objected-to instances is not in any way misleading, and is entirely appropriate. Accordingly, the objection is believed to be improper, and should be withdrawn.

Claims 1-19 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants respectfully traverse.

The Examiner argues that there is some ambiguity in the use of the term "result" in the independent claims, and that this alleged ambiguity renders the claims indefinite. More particularly, the Examiner argues that it is not clear whether the "results of the transformed computational task" constitute results that are attributable to execution of the computational task in the at least one additional machine.

Applicants initially submit that, when the claim is read in conjunction with the specification, it is clear that the "results of the transformed computational task" are results that are attributable to

execution of the transformed computational task. For example, with regard to the illustrative embodiment of FIG. 3, the specification at page 6, lines 10-18, states as follows:

> The resulting transformed task is delivered over network 106 to one or more of the servers 104, which perform the computation as indicated at 302. One or more results of the computation are delivered from the server or servers via network 106 back to the originator 102, which then performs the result transformation 304.
>
> In the result transformation 304, the originator processes the result(s) of the transformed task using invert permutation and invert blinding operation 320, followed by a verification operation 322. Examples of these operations for the digital signature protocol will also be described in greater detail below. The output of the result transformation 304 represents the results of the original input computational task.

Applicants wish to emphasize that the above portion of the specification is recited simply as an illustration of one possible embodiment falling within the claims.

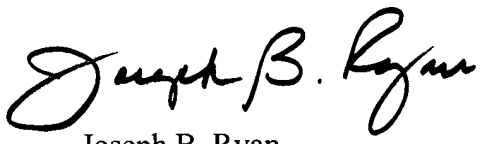
Also, Applicants note that the claims at issue by their express terms make it clear that the transformed computational task is executed in the at least one additional machine, that one or more results of the transformed computational task are received by the originator machine, and that said one or more results are transformed by the originator machine to permit verification. The various alternative interpretations asserted by the Examiner are believed to be incompatible with the clear language of the claims, and were apparently derived by taking the term "results of the transformed computational task" out of the context of the rest of the claim limitations.

In the context of the claims, there can be no results of the transformed computational task other than results that are attributable to execution of the transformed computational task in the at least one additional machine. Put another way, in order for there to be a result of a given task, there must necessarily be execution of at least a portion of that task. Absent such execution of at least a portion of the task, there can be no result of the task. This flows from the ordinary meaning of the word "result." Accordingly, the objected-to term "results of the transformed computational task" are clearly results that are attributable to execution of the transformed computational task.

In view of the foregoing, the §112 rejection is believed to be improper, and should be withdrawn.

Claims 1-19 are believed to be in condition for allowance, and such favorable action is earnestly solicited.

Respectfully submitted,



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